



OREGON TUALATIN VALLEY



APRIL 1985

AMATEUR RADIO CLUB

Po Box 5132 Beaverton, Oregon 97006

EDITOR: AL BERG WB7SIC

Membership: 234

CIRCULATION: 300

President:	Geno Buell	KA7KBH	Trustee:	Linda Cereghino	N7CZY
Vice-Pres:	Hanford Van Ness	KE7BB	Trustee:	Terry Biggs	WB7CHK
Secretary:	Jeff Freedman	K7JF	Trustee:	Al Berg	WB7SIC
Treasurer:	Randy Stimson	KZ7T	Trustee:	Greg Milnes	W7AGQ
			Trustee:	Dave Parker	W7LJN

MEETING: 2nd WEDNESDAY BEAVERTON ELKS AT 7:00 p.m. (Dinner at 6:30 p.m.)

MEETING PROGRAM: COMPLETE PROGRAM DETAILS CAN BE FOUND ON THE BACK PAGE.

April Fool CW Contest !

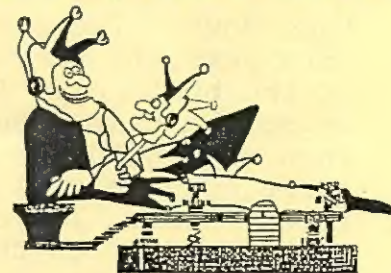
*40 METER APRIL FOOLS CONTEST RULES***NEW DAY, TIME AND FREQUENCY*

***DATE, TIME, & FREQUENCY:** Tuesday, April 9, 1985, 8:30 to 9:30pm (local), 7.100 to 7.150 MHz.

***OBJECTIVE:** To work as many stations as possible during contest period and in so doing promote the spirit of friendly competition and sportsmanship. To improve our proficiency in C.W. and give all participants a chance to meet new friends. New or inexperienced operators are especially invited to participate.

***EXCHANGE:** Call, Club designator, & ARRL Section (i.e. OR, or WA).
Novices sign <call>/N, Technicians sign <call>/T.

Club:	Designator:	Club:	Designator:
OTVARC	4A	Hoodview	6A
Portland	3A	McMinnville	2A
Clark Co.	5A	Others	1B



***MULTI-OP** Stations are O.K. one transmitter, and one receiver only. Control ops of Novice or Technician multi-op stations must operate for reasonable part of contest.

***SCORE:** Add 4 points per Novice or Technician station contacted. Add 2 points for all DX stations contacted (DX is other than OR and WA). Add 1 point for all other stations contacted. Contest is not restricted to club members. Duplicate contacts do not count even if with different operator.

***LOGS:** Use your choice of log. Logs are due postmarked no later than April 15, 1985. Send logs to:

OTVARC, P.O. Box 5132, Beaverton, OR 97006.

***PRIZES:** Winner will receive a special engraved plaque. Also presented will be most CONGENIAL/BEST OPERATOR rotating TROPHY, courtesy Antronics of Oregon, please vote for the operator you feel qualifies for this on the bottom of your log. Everyone who submits a log will receive a special APRIL FOOL certificate, and recognition in OTVARC NEWSLETTER.



ARRL NORTHWEST DIVISION/OREGON STATE HAM CONVENTION

It is time to forget the generalities and get down to business. We have about 8 weeks left to make sure our program is complete and, if it is not, do something about it. I paint no rosy picture. We can discuss success after the convention. Right now we have a great deal of work to do and some of it must be done by May 1... Anything that is to be included in the convention brochure must be in the printers hands by that date. This includes a complete seminar schedule, exhibitor ad copy, an accurate listing of prize donors, the usual page

from the Oregon State Governor, meeting schedules and more. Couple the above mentioned with the need to finalize work schedules and many small detail items and you come up with shorter fingernails and a very deep appreciation for Excedrin! The communication between committees has not been as good as in the past and I take much of the blame for that. The past three months have been a little hectic what with the work involved in obtaining the ARRL 1988 National for Portland. And, of course, there is a little time devoted to putting bread on the table. I will get my act together and try to help those of you who may be having a rough time.

EXHIBITORS CONFIRMED AS OF 3/15: Kenwood--Icom--Yaesu--Larsen--Tuned Antenna Co.--Worldradio--Cal Rep Engineering--Tele Com Electronics--Electro Service Co.--Amsat--C-Comm--Nova Earth Stations--Hats For Hams Portland Radio--Curlys Engraving--ABC Communications--Buds Specialties Antronics of Oregon--Solid Wood Call Signs--Accurate Engraving Service Electronic Put Ons--ARRL--ARES--PARC--ARRG--OTVARC--Linn Benton Lincoln Emergency Rptr Assoc.--QCWA--Farmers Mtn. Rptr. Assoc.....AEA??



We have a couple of weak spots to improve. One is in the number of helpers to oversee the flea market and the other is on the committee that helps the exhibitors set up and take down. The convention centers second floor balcony, which is new this year, is serviced by an outside elevator located on the West side of the building. The other entrance for flea market, and exhibitors, is on the East side. This divides our manpower and requires more help than needed in the past. The elevator could be a real hassle if we are short on help so I ask some consideration from members who can spare a little time. If you can help on the flea market duties give our Prez a call and if on the exhibitor end of things, call Wes, K7WWG or Jim, KA7TAC. It will only take four or five people to save the day. How about a helping hand! Please?

A final comment would be to alert all of you who have signed up for a security stint that the elevator on the West side makes our job a little tougher in that we have two wide open exits, and entrances, to watch. The second floor will be of great benefit to the overall show but, as you can see, it does increase our need for more help. As far as our security duties are concerned, remember that those of you who put in at least three hours of duty are in the drawing for the Kenwood TH 2I HT, value of \$199.95....

(the reason the type changed is the club machine just decided it needs a rest so off to the hospital)



1985 ARRL NORTHWESTERN DIVISION & OREGON STATE HAM CONVENTION

P.O. Box 920 • SEASIDE, OR 97138

UPDATE

PROGRAM ADDITIONS

UPDATE

BILL LAZZARO, N2CF

ARRL Development Manager — ARRL Forum and Banquet Message

STUART MEYER, W2GHK

National QCWA President — QCWA Luncheon and Banquet Message

PROGRAM CHANGES

ARRL FORUM

Changed to Saturday — Convention Center, Mariner Room, 4:00 p.m.

NO HOST COCKTAIL HOUR

Saturday at 5:00 p.m. — Shilo Inn, Dolphin Room
(Convention Center opens at 6:45 for Banquet)

MEETING ANNOUNCEMENTS

ARRL SECTION MANAGERS' MEETING

Saturday at 10:00 a.m. — Econo Lodge meeting room

ARRL CABINET MEETING

Saturday at 2:30 p.m. — Convention Center, Dolphin Room

REPEATER OWNERS' FORUM

Saturday at 1:00 p.m. — Econo Lodge Meeting Room

NORTHWEST AMATEUR RADIO COUNCIL

Annual meeting and elections — Saturday at 11:30 a.m. — Econo Lodge meeting room

EXHIBITOR UPDATE

KENWOOD ICOM YAESU

and 30 more, as of 3/15/85

PRIZE ADDITION

Weekend for 2 at Red Lion/Thunderbird of your choice. Two dinners for two and Sunday Brunch.

(DONATION)

MAY 31 ■ JUNE 1 & 2, 1985

REPEATER NO-NO



We have had some recent abuses on both 147.32 as well as the 147.04 repeater machines. Certain types of individuals take delight in messing with rights and privileges of others and will do their

best to upset anyone who will allow themselves to GET upset... A word to the wise: Do NOT

get on the air and tell the misdoer what a nerd he is. Do NOT pound off the repeater no matter what number is called. All you are doing is giving the person more fuel. Go watch TV or practice your code. If you are the owner of a beam, spend your time trying to get a heading and or a signal reading on the input frequency. There ARE monitors who keep records and headings are difficult to get if YOU are expressing yourself. DON'T..

FCC CHECKS POWER OF AMATEUR STATIONS

A number of ARRL members have reported to us that some amateur stations in their area have recently been inspected by FCC personnel. The members have expressed concern that FCC might be preparing to change its amateur power limits. ARRL Washington Area Coordinator Perry Williams, W1UED, visited a senior official in the Field Operations Bureau to discuss the situation. The FOB had taken measurements at 172 amateur stations, completing this phase by February 25. Objectives were to discover whether amateurs can reduce power; what levels most amateurs use; what effects a 50% reduction in power has on a QSO in progress; and whether there is a general awareness and compliance with Section 97.67(a) of the Amateur Rules which mandates use of the minimum power necessary for the communications in progress.

Williams told the official of amateurs' fears that this study was a prelude to a rulemaking which would reduce the power limit. The spokesman said "That would not be reasonable. There are conditions where full power is needed." The FOB official was not sure exactly what the data will be used for; perhaps FOB would use the information to persuade individual amateurs to temporarily use less power where there is a reported case of amateur interference to neighbors. The FOB official told W1UED that he believed the results of the study would be available in early summer.

THE ARRL LETTER

VIDEO INNOVATIONS RAMPANT AT C.E.S.

Video Cassette Recorder growth has finally started to slow down. The growth rate in 1983 was 100% when industry sales of VCR's doubled. In 1984 the increase was 78%. Analysts expect a 30% rate this year. Still, 9.5 million units will be sold in 1985 and thirty percent of all U.S. households will have one.

A \$99 VCR transmission gadget was introduced at the recent Las Vegas Consumer Electronics Show that has the potential for ham radio interference problems if it catches on. A small device called the "VideoCaster" plugs into your VCR and broadcasts an over-the-air signal from a recorded tape or on-the-air program to every TV in your home! It can even feed a battery-powered portable set out on the patio! The low-power signal has a reported range of only 40 feet.

The big gun in video sales this year will be prerecorded and blank cassettes. Video software sales doubled in 1984. Thirty-three million units are predicted for 1985 along with 122 million blank tapes... a multi-billion dollar annual market!

But TV "players" (VCRs that don't record) and video/laserdiscs (that show video as well as play records) have bombed in the marketplace.

And watch for giant 35" color sets from Japan this fall. Mitsubishi's giant CRT weighs in at 110 pounds alone! It was also introduced at the CES and has 80% more viewing area than the present maximum (25") size. It is the largest TV screen that is not a projection unit and is only 22" deep. One disadvantage is that it isn't as bright as current 25" sets since extra reinforcing against implosion (which dulled the picture somewhat) was necessary.

Another video innovation to be on the lookout for is multi-channel capability... TV sets with two tuners so that you can watch two programs on the same television simultaneously! A smaller screen is super-imposed in the corner of a larger one so you can keep track of "that other football game"... or whatever. It appears that "windowing" has finally come to consumer TV.

W5YI



Wow, what a meeting we had in March. We had a very large turnout and lots of people had dinner. A big thanks to all of you who came. It really felt good to see so many happy people. Also, a thank you to Janet, WB7FJC, for getting us the program. It was excellent and gave us some very interesting information. The NO SMOKING table seemed to go over real well and thank you for your cooperation as the problem seems to be working itself out very well. Hope to see you all at the April meeting and, don't forget, we have a suggestion box up front.

73-88 Geno KA7KBH

ARRL/VEC in Full Operation

Volunteer Examiners began running Amateur Radio license exam sessions nearly a year ago. Yet, when the first edition of the ARRL's *VE-Manual* was released in June 1984, the rulemaking process was still underway and we all still had a lot to learn. The second edition of the *VE-Manual* is now being mailed to our thousands of Volunteer Examiners nationwide. It includes the latest FCC rule changes and has practical advice based on the first-hand experiences of our VEs.

Now that the ARRL/VEC is in full operation, we want you to be aware of certain features of our program:

- Walk-ins are allowed if the VE Team desires;
- Sessions may be set-up one month in advance;
- Paperwork has been streamlined;
- The *VE Manual* explains the FCC Form 610 line-by-line;
- We provide samples of completed forms plus clear instructions to guide the VEs in completing them.

The FCC's data shows that the ARRL/VEC is coordinating the vast majority of all test sessions and our schedule of sessions grows weekly. We expect to coordinate between 160 and 200 sessions nationwide each month through the rest of this year. The ARRL/VEC has also supported VE Teams in such far-flung places as Guam, Iceland, Japan, Germany and Saudi Arabia, bringing the test sessions to U.S. citizens stationed overseas.

The Volunteer Examiner Program is just one more sign that the Amateur Radio Service is vital and growing. The American Radio Relay League is proud to support the work of our many VEs serving the entire U.S. Amateur Radio Community. — **Curt Holsopple, K9CH, Manager, ARRL/VEC**

ARRL FIELD FORUM

Club Challenge for the '80s

The competition is on! A few weeks ago we sent a supply of ARRL's new membership brochure, "Your Invitation to Membership in the ARRL," to all actively affiliated radio clubs — and your response has been terrific. Jeff Freedman summed up the general attitude in his letter as Secretary of the Oregon Tualatin Valley ARC:

February 15, 1985

Dear Folks:

We are in receipt of your package including information pertaining to "Club Challenge of the 80's," for which we thank you. After discussing the new campaign with our club members at last night's meeting, the club voted to support the League and promote our own effort to meet the Challenge. We even signed our first new ARRL member under the program, and will be sending his application under separate cover.

Watch out ARRL, the Oregon Tualatin Valley ARC is out to meet and even beat "the Challenge!"

Thank you very kindly.

Yours very truly,
/s/Jeffrey A. Freedman, K7JF
Oregon Tualatin Valley A.R.C.

John Bennett
13470 SW 6th

Beaverton, Ore. 97005

OTVARC:

Enclosed you will find a "belated" check for dues for 1985.

I really do miss the newsletters and hope that I will get them for the remainder of '85.

Sincerely
J. Bennett

I would like to thank John Bennett personally as well as publicly for a note that means a lot to an editor. I am going to frame it and put it up in front of the typewriter so when my tail starts to drag, all I have to do to get rejuvenated is to look up. Thank you VERY much John.

The ARRL FIELD FORUM is a brand new quarterly letter filled with news from 'the field' rather than items of national importance. Club doings and the like. Our own K7JF got his well written letter published and it was the only one in a full column article. Nice going Jeff. You are right. If any club can come out a winner, it's OTVARC.....

A CONTINUING BATTLE



Nope, this will not be what you think it might be. I was doing a little thinking today, something I seldom do, about what new thing could be said to entice a non ARRL member into joining the League. A pretty difficult thing to do, I assure you. What prompted this thought

process was a sale I made today. (I work at Portland Radio) Two fellows came in and bought handhelds. The usage is to be for communications while flying their lighter than air planes. Neither had a license. I began to think of the many sailboat owners I have seen walking out of the store with general coverage HF rigs to use 'just in case' and I was thinking of all the HTs that were bought last summer by backpackers. Again, to have 'just in case'. Before you start blaming retailers for this, realize how many dealers there are, realize that selling transmitting gear to anyone is legal and also realize that it is the manufacturers that are making HF transceivers, easily switchable to transmit general coverage, that the general public finds useful to have. A whole passle of HTs are being bought and used by businesses and private interests. The reason for this is the same as with the HF gear. The new breed of HTs are easily made to transmit far out of the amateur band. Well, what the heck has this got to do with YOU and the ARRL? Given a few more years of general coverage sales, the amateur community could well be outnumbered. We have a small percentage of cussing, jamming, carrier throwing 'hams' among our ranks. Put an equal number of transmitting gear in the hands of the public and watch that percentage climb. The FCC can't and won't be of any help as they are under budgeted and under staffed. It was brought to light very recently that the more complaints the FCC gets regarding amateur problems, the more they feel that everybody would be better off without ham radio. They look at all the public utilities, air, marine, land mobile and make a comparison to the measly 400,000 hams in their jurisdiction. There are MILLIONS of non-ham communicators out there. We have a squeaky voice and carry a very small stick. If you are a gun lover, you may be aware of the role the National Riflemans Association has played in the Right to Bear Arms legal battles. They have done an incredible job and only because they have money and numbers. The ARRL has done an excellent job also, in spite of the fact that less than half of the amateur community supports it. We support our insurance companies because we want to protect our vehicles, our homes, our health and more. Hundreds of dollars a year to protect. Some hams even have special insurance to protect their gear. If you are an average ham, you probably have around \$2000.00 worth of equipment and, as such, you are concerned about any damage or loss of it. I come from a different direction. I spent a lot of time and work to attain my license and its resulting PRIVILEGES! I can replace a lost radio but once a privilege is gone, it stays gone. I would much rather spend \$25.00 a year to support my hobby than to buy QST in a store and have it cost me \$30.00. ————— Forget all of the side benefits of belonging to the ARRL and consider this. Is it not worth it to INSURE that we will maintain our privileges in the years to come? Is \$25.00 a year too much to ask for the assurance of a voice in Washington DC? We ARE facing some very difficult times and without backing and a strong voice, we could lose a lot of spectrum.

YOU CAN'T WIN A WAR WITHOUT SOLDIERS.....

Our bodies are amazing creations.

If all of the several hundred muscles in your body could pull in one direction you could move 25 tons.

Over half of the 206 bones in your body are in your hands and feet.

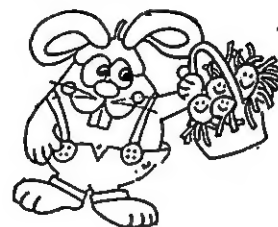
Your heart pumps about 2,000 gallons per day and you produce about one billion red blood cells each day.

Your eyes and your brain work together to build up color from waves of energy and most people can distinguish several million differences in colors.

And this may bother you: Each pound of excess fat you carry requires an extra 200 miles of tiny blood vessels.

HAPPY EASTER

TO ALL.....





NEWS

By the time a man can afford to lose a golfball he can't hit one that far.

HAM FINED \$2000 FOR RUNNING OVER 20KW

Jerry R. Dyke, WB5LEU of the Houston suburb of Spring, Texas, has been fined \$2,000 by the FCC for overpower operation in the amateur 80-meter band. The Notice of Violation was issued for running excessive output power on January 15, 1985, between the hours of 9:01 and 9:30 p.m., CST on a frequency of 3895 kHz.

The station had been under FCC observation for several months. Dyke was monitored by the FCC's Houston field office. Engineer-in-Charge, Dan Cantrell said "the power level was measured in excess of 20,000 watts." The investigation was initiated by complaints from other amateurs.

Dyke was found operating a Collins S-Line which was driving a Drake R4B linear amplifier. The linear, in turn, was driving a 6XC10000T transmitting tube with a capacity of some 48,000 watts. The carrier power of the home brew amplifier was measured at 25 KW.

It appears that the high power station was built to retaliate against harrassment by other amateurs utilizing the same 3895 frequency. The FCC said they wanted to make it very clear that no one has exclusive pre-emptive rights to any amateur frequency "no matter how noble the service performed by a network. The spectrum belongs to everyone and amateurs must work together." W5YI

Following a wedding the bride's father said to the weeping mother: "Don't think of it as losing a daughter. Think of it as gaining a bathroom."

WELCOME

John and Debby Burgess, N7DCQ and N7FVH, are the proud parents of first-born Robert John Burgess. Robert, the new harmonic, was born Saturday, March 24 at 3:19 in the morning. His weight was 8# 6 oz. and he was 22½" long.

We wish Robert the very best and offer a round of congratulations to the new mom and pop.....



W5YI REPORT.....

CENSUS OF AMATEUR RADIO OPERATORS BY STATE AS OF 2/26/85

STATE:	EXTRA	ADVAN.	GEN.	TECH.	NOVICE	TOTAL:
Alabama	526	1304	1607	1236	1025	5698
Alaska	190	477	561	327	404	1959
Arizona	646	1915	2122	1630	1118	7431
Arkansas	269	769	912	577	583	3110
California	4714	14218	14821	13226	9818	56797
Colorado	674	1655	1919	1167	1202	6617
Connecticut	672	1422	1856	852	1530	6332
Delaware	107	211	254	202	210	984
District of Columbia	54	101	138	46	75	414
Florida	1941	5928	6925	4507	4727	24028
Georgia	721	1894	2135	1516	1299	7565
Hawaii	176	478	544	292	331	1821
Idaho	175	451	628	307	377	1938
Illinois	1537	3863	5124	3626	3384	17534
Indiana	739	2141	2653	2195	2111	9839
Iowa	399	1138	1594	729	979	5039
Kansas	176	1052	1559	657	933	4577
Kentucky	341	943	1307	938	1005	4534
Louisiana	468	1223	1370	820	845	4726
Maine	218	530	872	323	465	2408
Maryland	368	2010	2025	1207	1335	7445
Massachusetts	1177	2520	3390	2259	1794	11140
Michigan	1226	3205	4190	2724	2906	14251
Minnesota	672	1763	2188	1088	1491	7202
Mississippi	208	633	792	419	463	2515
Missouri	691	1912	2485	1362	1645	8095
Montana	143	371	544	171	340	1569
Nebraska	164	726	972	407	500	2769
Nevada	177	423	595	363	353	1911
New Hampshire	285	591	798	481	495	2650
New Jersey	1358	3143	3517	2670	2267	12955
New Mexico	328	697	806	457	391	2679
New York	2245	5640	6898	4953	6197	25933
North Carolina	717	2065	2167	1458	1452	8059
North Dakota	65	207	384	192	238	996
Ohio	1622	4425	5498	4905	3912	20360
Oklahoma	378	1319	1348	1013	947	5005
Oregon	631	1751	2261	1351	1590	7584
Pennsylvania	1559	3893	4941	3211	3602	17211
Rhode Island	157	295	510	362	298	1622
South Carolina	118	845	1191	587	557	3498
South Dakota	35	286	361	133	197	1062
Tennessee	660	1901	1868	1758	1351	7538
Texas	2190	6117	7074	4915	3873	24169
Utah	194	600	622	606	447	2469
Vermont	109	255	342	128	191	1025
Virginia	1035	2349	2727	1488	1674	9273
Washington	1110	2942	3676	2164	2419	12511
West Virginia	213	557	822	498	838	2978
Wisconsin	540	1551	2134	1069	1286	6580
Wyoming	78	181	297	119	231	906
Guam	14	43	24	21	59	161
Puerto Rico	104	305	281	811	1668	3169
Virgin Islands	12	37	37	22	59	167
American Samoa	2	2	5	2	5	16
Johnston Island		2			1	3
N. Mariana Island	4	5	3	1	2	15
Other	1	3		2	2	8

TOTAL: 36303 97518 116874 80658 79497 410850
 (Plus: 2302 Club Stations; 175 Military Stations; and 399 RACES Stations)
 TOTAL ACTIVE AMATEUR RADIO STATIONS AS OF 2/26/85: 413,726

AMATEUR RADIO STATISTICS BY MONTH

Class:	OCT:	NOV:	DEC:	JAN:	FEB:
NEW LICENSES TO:					
NOVICE	895	1189	1408	1262	1146
TECHNICIAN	29	54	77	49	57
GENERAL	23	22	47	26	27
ADVANCED	12	11	16	5	9
EXTRA	2	3	4	1	3
TOTAL:	961	1281	1552	1343	1242

UPGRADES....

FROM NOVICE TO				
TECHNICIAN	264	523	711	450
GENERAL	114	152	215	180
ADVANCED	10	13	19	15
EXTRA	2	2	4	2
SUBTOTAL	390	690	949	647
FROM TECHNICIAN TO....				
GENERAL	178	217	223	230
ADVANCED	39	59	76	26
EXTRA	1	1	1	2
SUBTOTAL	217	277	299	257
FROM GENERAL TO....				
ADVANCED	148	320	432	109
EXTRA	10	18	29	7
SUBTOTAL	158	338	461	116
FROM ADVANCED TO....				
EXTRA	58	200	190	77
TOTAL	823	1505	1899	1097
UPGRADES	823	1505	1899	1097

AMATEUR RADIO CALL SIGNS....

Issued as of the first of March:

Radio District	Gp."A" Extra	Gp."B" Advan.	Gp."C" Tech/Gen	Gp."D" Novice
1	N3BM	KD9VJ	N8FZL	KA8UCK
2	KYIN	KB1RO	N1DKK	KA1MSB
3	N1IX	KD2LM	N2FJJ	KA2WKO
4	KV3G	KC3RB	N3EGO	KA3JNH
5	AA4HX	KH4AK	N4LOC	KA4NCK
6	KU5N	KE5XD	N5HSU	KA5VNL
7	WE6X	KG6PA	N6LRI	KB6HVP
8	NM7L	KE7EF	N7GXV	KA7USI
9	NK8V	KD8WY	N8GHR	KA8VZK
10	N09N	KD9NT	N9FAP	KA9TDT
N.Mariana I.	AH0D	AH0AC	KH0AG	WH0AAG
Guam	AH2V	AH2BD	KH2BY	WH2AFM
Johnston Is.	AH3A	AH3AC	KH3AB	WH3AAC
Midway Is.		AH4AA	KH4AD	WH4AAF
Hawaii	WH6W	AH6FZ	NH6DB	WH6BCK
Kure Is.			KH7AA	
Amer. Samoa	AH8B	AH8AB	KH8AD	WH8AAO
Wake Wilkes Peale		AH9AB	KH9AB	WH9AAM
Alaska	(*)	AL7GR	NL7FH	WL7BGD
Virgin Is.	KP2L	KP2AT	NP2BF	WP2AEJ
Puerto Rico	WP4F	KP4J	NP4MS	WP4DYX

The FCC's license service report for the month of February indicates that it is taking 16 business days to process a new (Novice) Amateur Radio application received in good condition - about three weeks. Upgrades are taking six weeks due to the length of time it takes to go through the VE/VEC system. Routine renewals are handled faster.

Amateur Applications:	Feb. 1982:	Feb. 1983:	Feb. 1984:	Feb. 1985:
Processed:	7,480	13,743	10,979	10,080

A very happy birthday to my loving husband Frank. From your devoted wife. Elizabeth.



NEW MEMBERS

A big OTVARC welcom to our newest signups! Hello to Jeff Wilson, KA7UFG who lives in Lake Oswego with his wife, Nancy. Jeff is in data communications and lists several ham interests. One of the more interesting comments is that he has a talent with

"Press Releases". Just what we need for an occasional shot at advertising amateur radio. Hmmm? Next is Chuck Bock, N7DZA. Chucks wife, Rose, is N7DZB. Work time sees Chuck as Manager for a local auto dealer. We will have to talk to Rose about joining. Lastly, for now, we have a couple joining us. Jack and Marjorie Smothers, KD7XI and WA6ZPX. They hale from Turner and are enjoying retired life. Jack was an electrical engineer and now enjoys lapidary while Marge spent her working days as a legal secretary. She now enjoys quilting and genealogy. Welcome, ALL!!

You Know When the Time is Right

Somewhere around age 10, Mary Baxter discovered the fascination of radio shacks while traveling onboard ships as her family moved either from one Consular post to another or sailed back and forth to the States. One radio operator taught Mary the Morse Code and how to send messages when he wasn't too busy. She wanted to become a ham then.

Later, at Mt. Hermon School in Northfield, Massachusetts, Walton Congdon invited Mary to join a Novice (a beginning ham radio license) class. At the time, she was teaching at both Northfield and Mt. Hermon Schools as well as keeping house and helping raise her four children. There was no time for additional undertakings. Then Mary retired.

At 64, Mary got that Novice license. Mary is now operating her own Amateur Radio station in East Norwalk, Connecticut. All it took was for her cousin, James Barker, to say "Why just talk about being a ham? Do it." When she started studying, Mary didn't know what a capacitor was. She now knows that it is possible to learn both code and radio theory. She also knows how lucky you are when you find a super "Elmer" (an affectionate term meaning "tutor") as she did in Phil Hintz, who also lived in Norwalk at the time. Mary earned her Novice license in 1979, and has progressed to the highest ham radio license class available. One of her most cherished possessions is her "First Contact Certificate," an acknowledgement for the Novice's first ham radio contact with another amateur.

Sometime in 1980, a ham friend asked Mary to compose some messages to pass via the Amateur Radio traffic (message) system. [Amateur Radio operators pass messages to and from third parties (non-hams) as a free public service.]

Curiosity aroused, Mary started listening to traffic networks to hear the messages that were passed. After a short time on some "training" message service networks, Mary became proficient in passing messages back and forth via ham radio.

Her Amateur Radio activities now consist of traffic handling on almost all levels. Mary is active on several message nets on the East coast, and is assistant net manager as well as an instructor on a New Jersey net, and holds several other posts on other nets. She has helped with the taping of study material for some operators unable to find the material needed on tapes or in Braille. Both Connecticut and New Jersey have awarded her



Certificates of Merit. Mary has also earned the coveted BPL medallion, presented to an Amateur Radio station who passes 500 messages in a month.

Mary has been told that to learn what it takes to become a ham is something one does for oneself. She doesn't believe it! Some of the best traffic handlers on the air have helped her in many ways: She well remembers the help from Phil Hintz, and she credits her first transmitter to Bingham Day. Her 39 years of teaching Spanish, French, Latin and biology at the Northfield schools paved the way for her enjoyment now in teaching message handling by radio. She discovered the thrill of talking to a Venezuelan in Spanish or of trying out her French on the air. Her enthusiasm and generous contributions to the state of the art are certainly proof that, at age 64, Mary knew the time was right for her to become a ham.



UPSY GRADES

Finally got a few to report and we know there has to be more out there. Proud of your upgrade? Let us know... Congrats to Pat Griffith, who now is a regular on 2m. Code comes later. Right Pat? Our Prize Committee Chairman, Jim Ziegler, managed to come away with a tech also. By the way, Pats call is KA7UP For Grabs and Jims is KA7Totally Accurate

Code...Suuure it is. A sneaky one is Gerard Davis, who was KA7KMA and is now an advanced class by call of KE7CF. Nice job guys and gal.....

KA7HJT tells us there will be an attempt to pass along upgrade info to whatever club a passee belongs to. Great! That will be a great help in the record keeping department. (passee?) Anyway, keep those upsy grades coming. Forget the lawn, the wife, the kids, and STUDY, STUDY, STUDY.

(Gerard isn't really sneaky-just haven't heard from him for months and months)

CLUB PROPERTY LIST

Your officers are making an attempt at compiling a list of all club owned property. At first thought, it doesn't seem to be much of a problem but it is amazing how much stuff we have accumulated in a matter of 4 or 5 years. An accurate inventory would be of value in eliminating a lot of the current confusion over who has what. If you have any club owned property, please let one of the officers know about it. Thanks.....

The ARRL Northwest Division Convention
and
The Northwest Amateur Radio Council
are sponsoring
Amateur Radio License Exams
for
Technician, General, Advanced and Extra
at
The Northwest Division Convention Center
Seaside, Oregon

on
June 1, 1985
at

10:00 A.M. for Pre-registered and 2:00 P.M. for Walkins

HOW TO REGISTER:

1. Complete FCC Form 610 (be sure to indicate the highest Class of License you will be attempting!)
2. Attach a copy of your Amateur Radio License (if applicable).
3. Make a check or Money Order for four (4) dollars payable to ARRL/VEC.
4. Mail all three of these to:

Randy Cobb/VE Exams
P.O. Box 5097
Aloha, Oregon 97006

5. DEADLINE - Registrations must be received by May 1, 1985.

FOR ADDITIONAL INFORMATION:

NORTHWEST AMATEUR RADIO COUNCIL

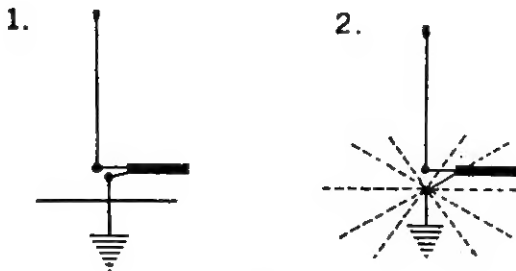
Armand, WA7IIM 760-2140
Dea, KX7T 632-4734
Joan, KD7YB 838-5159
Ralph, WB7VGS 649-5845

Randy, KA7HJT 649-5066
Lea, AL7W 777-1032
Tom, KV7Y 254-8006
Rozy, KA7CED 255-0739

NOTES ON GROUND/RADIAL SYSTEMS

GROUND MOUNTING

A vertical antenna in its simplest form, is electrically equivalent to one-half of a dipole antenna stood on end. When the antenna is mounted close to the ground, the earth below takes the place of the "missing" half of the dipole. If ground conductivity is fair to good, a short metal stake or rod may provide a sufficiently good ground connection for resonant and low-SWR operation on the bands for which the antenna is designed. This basic arrangement is shown in figure 1.



In almost every case the efficiency of a vertical antenna will be greater if radial wires are used to improve ground conductivity as in figure 2. For ground mounted verticals using radials please note:

1. Radial wire size is unimportant and radials may be of any convenient length.
2. Radials need not all be the same length, nor do they have to be laid in a straight line. It is pointless to cut radials to resonant lengths because the ground will detune them.

It is generally more convenient to slit the sod and to push the radials into the slits to a depth of a few inches, but they may be left on the surface if they do not constitute a hazard. A large number of long radials will naturally be more effective in reducing ground losses than a small number of shorter ones, but one should remember that the greatest loss will occur in the earth near the base of the antenna where current flow is greatest. For this reason it is generally better to use a larger number of radials of shorter length than a smaller number of longer ones for a given amount of wire. For multiband operation over the HF range the best ground system will consist of as many radials of the greatest length that circumstances will permit.

In some cases wire mesh (i.e. chicken wire) may be used as a substitute for radial wires and/or a ground connection, the mesh or screen acting as one plate of a capacitor to provide coupling to the earth beneath the antenna. It should be noted that a ground rod is useful only as a d.c. ground or as a tie point for radials. It does little or nothing to reduce ground losses at r.f. regardless of how far it goes into the ground.

EFFICIENCY

The importance of reducing losses in the ground system can be seen from an examination of a vertical antenna's feedpoint impedance which at resonance consists of three components: antenna radiation resistance; conductor loss resistance; and earth loss resistance. An unloaded quarter-wave vertical antenna has a radiation

resistance of about 35 ohms with negligible ohmic or conductor loss, but ground loss resistance may be very great if no measures are taken to reduce it, and in some cases ground loss R may even exceed the antenna radiation resistance. These three components may be added together to arrive at the feedpoint impedance of a resonant (no reactance) antenna. For the sake of illustration, assume that the ground loss beneath a quarter-wavelength vertical antenna is 15 ohms, that conductor loss resistance is zero, and that the radiation resistance is the textbook figure of 35 ohms. The feedpoint impedance would then be $15 + 0 + 35 = 50$ ohms, and the antenna would be perfectly matched to a 50 ohm coaxial line. Since the radiation resistance is an index of the amount of applied power that is consumed as useful radiation rather than simply lost as heat in the earth or in the conductor, the radiation resistance must be kept as high as possible in relation to the total feedpoint impedance for maximum efficiency. Efficiency, expressed as a percentage, may be found by dividing the radiation resistance by the total feedpoint impedance of a resonant antenna, so under the conditions assumed above our vertical antenna would show an efficiency of $35/50 = 70\%$. As a vertical antenna is made progressively shorter than one-quarter wavelength the radiation resistance drops rapidly and conductor losses from the required loading inductors increase. A one-eighth wave inductively loaded vertical would have a radiation resistance of something like 15 ohms and coil losses (or trap losses for multiband antennas) would be in the range of 5 ohms. Assuming the same value of ground loss resistance (15 ohms), the feedpoint impedance would become $15 + 5 + 15 = 35$ ohms and the efficiency would be $15/35 = 43\%$. From the above calculations it is clear that the shorter a vertical antenna must be the less efficient it also must be for a given ground loss resistance. Or to state the matter another way, more elaborate ground or radial systems must be used with shorter verticals for reasonable efficiency. If the ground loss of resistance of 15 ohms from the preceding example could be reduced to zero ohms, it is easy to show that the efficiency of our one-eighth wavelength loaded vertical would increase to 75%. Unfortunately, more than 100 radials each one-half wavelength long would be required for zero ground loss, so lower efficiencies with shorter radials must usually be accepted for the sake of convenience. In spite of their limitations, short vertical antennas over less than ideal ground systems are often more effective DX performers than horizontal dipoles which must be placed well above the earth (especially on the lower bands) to produce any significant radiation at the lower elevation angles. Verticals, on the other hand, are primarily low-angle radiators on all bands.

The above article is courtesy of Butternut Electronics. Our next issue of the newsletter will see a similar article but it will cover roof and tower mounting information. The June issue is to be devoted to vertical mounts on mobile homes and RVs. These will all be from Butternut.... Hope these are worthwhile.

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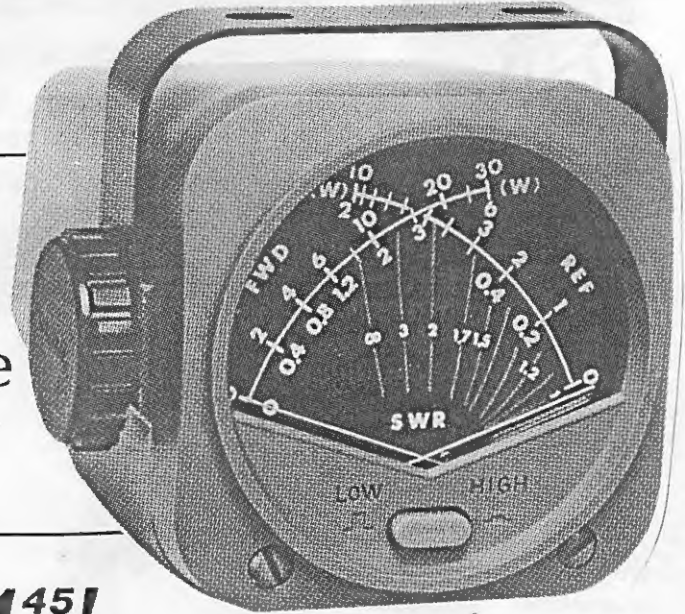
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**SHOP WHERE EVERY DOLLAR YOU SPEND
HELPS SUPPORT YOUR CLUB!**



MEETING PROGRAM

Our program this month will be presented by Dave Comfort, Bosuns Mate 3rd class, of the US Coast Guard. He will enlighten us on some of their communication systems and has a few stories relating to ham radio to the rescue. Sailing boat mishaps, sinking ships and more accidents of this nature are an everyday type thing for the Coast Guard. We know what they do but do we know all about how?? Come to the meeting and find out. This should be a very interesting program. Let's give Mr. Comfort a rousing OTVARC welcome and turnout.....

SECTION MANAGERS REPORT

OREGON: SM, William R. Shrader, W7QMU — STM: W7VSE, SEC: N7CPA, PIO: KC7YN, SGL: KA7KSK, ACC: WB7WTD, RFI: AK7T, OO: N7SC, STC: N7ENI, Upgrades: KA7UCE (Novice; KA7RPL, KA7OQG, KA7PZV (Tech); WA6ZJA, N7GMT, KA7AZK (General); WB7QOY, KA7TDL, N7FGW, N7EYS (Advanced); KA7NPN, KA7JOA, NJ7H (Extra). A big list this month, Congratulations all. Lots of new Club officers for 1985. Salem ARC: Pres. KD7YB, V. Pres. KB7KM, Sec. KC7LE, Treas. KA7CVZ, Rogue Valley ARC: Pres. WB7RQG, V. Pres. WB7UHP, Sec/Treas. KA7OFM, Sunset Empire ARC: Pres. N7EYS, V. Pres. W6LLC, Klamath Basin ARC: Pres. KD7AD, 1st V. Pres. W6HSW, 2nd V. Pres. KA7NEP, Sec. ND7V, Treas. W7IEO, Sgt at Arms. KD7WB, Editor. K7TDX. Big news from Klamath Basin, K7DDI got a new bride on 6 Feb. Congratulations!!! Crater Lake Chapter #153 of QCWA now a reality. NB7J is charter president. Oregon Section badly needs Emergency Coordinators for the following counties: Linn, Wasco, Dechutes, Crook, Malheur, Baker, Wheeler and Harney. If you are interested in doing something to help Amateur Radio this might be a good spot. If you are interested, contact N7CPA, Oregon SEC, 801 Pinehurst, Newberg, OR 97132 for info. Traffic: W7VSE 596, W7ZB 151, W7LRB 137, N7FLC 136, AL7W 117, K7OVK 111, WB7OEX 72, KX7T 70, KX7W 50, N7BGW 49, WA7VTD 42, KA7AID 37, W7LNE 12.

WHO TO CALL FOR WHAT

*PUBLIC SERVICE	Sherrill Smith	KA7KNG	654-9499
	Bud Butterfield	KC7PS	649-1523
*CLUB CONTESTS	Jeff Freedman	K7JF	297-7965
*TECHNICAL	Dee Lynch	KA7NPN	646-4580
*PROJECT NITE	Terry Biggs	WB7CHK	648-3687
*PUBLIC RELATIONS	Randy Stimson	KZ7T	297-1175
*CLUB RAFFLE	Jim Ziegler	KA7TAC	246-2539
*MEETING PROGRAMS	Hanford Van Ness	KE7BB	246-7975
*CLUB SOCIALS	Paul Lucas	WB6SHR	641-8713
*EMERGENCY SERVICE	Willis Ranes	N7DZR	292-1656
*TRAINING (classes)	Randy Cobb	KA7HJT	649-5066
*WELCOMING	Doug Bull	N7CDI	649-4540
CLUB JACKETS	Dave Parker	W7LJN	639-7020
CLUB BADGES	Jeff Freedman	K7JF	297-7965
ROSTER CHANGES	" "	" "	" "
ARRG INFORMATION	Warren Winner	W7JDT	644-0752
CLUB SCRAPBOOK	Doc Miller	KA7BSD	
ARRL MEMBERSHIP	Randy Stimson	KZ7T	297-1175
CONVENTION (Oregon)	Al Berg	WB7SIC	640-5456
NEWSLETTER	" "	" "	" "
ARRL LIAISON	" "	" "	" "

* (indicates committee)

CLUB ARRL APPOINTEES

ARES District Emergency Co-Ordinator	KZ7T	297-1175
ARES Washington County Co-Ordinator	N7GMS	246-5007
ARRL 1988 National Convention Chm.	WB7SIC	640-5456

A NEW KID ON THE BLOCK

Steve and Susan Das, our distant members in Lake Jackson Texas, are the proud mom & pop of a new 9# IOoz. male type son. The passer on of this news forgot to nail down a name so we will just assume there is one and stand by till we find out what it is. Very best to all of the Das tribe. If they keep it up they just might replace the Oiler team.

APPOINTMENT OPENING (ARRL)

Anybody want a neat job?? The position of Affiliated Club Coordinator is open. It is an appointed ARRL job and under the direction of the Oregon SM. who in this case is good old Bill Shrader, down in Medford. Barry Carlson, the outgoing ACC, must relinquish the position after 3 years of service. Good service too. If you have a desire to be the ACC for Oregon and truly believe you could do a good job, give Bill a call or, if you want to save a toll charge, call our new Assistant Director, Armond Pillotte, WA7IIM.

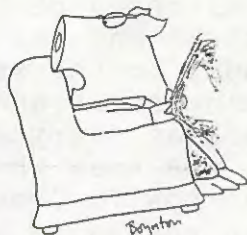
FIELD DAY

Next month we will have a complete informational page or two on Field Day. June 21-22-23 is the big weekend to keep freed up.

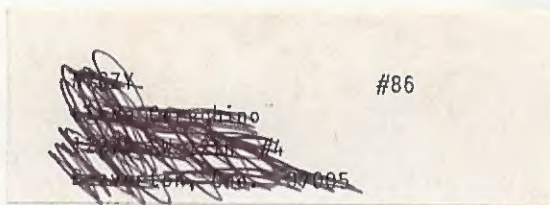


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